

PROJECT ADMINISTRATION DATA SHEET☒

ORIGINAL

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REVISION NO. \_\_\_\_\_

Project No. A-2985DATE: 8/6/81Project Director: Dr. T. L. StarrSchool/Lab EMSL/CEBSponsor: Lester Industries, Inc.; Rome, GA 30161Type Agreement: Purchase Order No. LI17786Award Period: From 7/1/81 To 8/31/81 (Performance) ----- (ReportSponsor Amount: \$250 Contracted throughCost Sharing: none GTRI/~~XXX~~Title: Testing of Foundry Roof for Corrosive EffectsADMINISTRATIVE DATAOCA CONTACT Duane Hutchison x48201) Sponsor Technical Contact: Mr. Martin J. Johnson; Lester Industries, Inc.;Box 2997; Westside Industrial Parkway; Rome, GA 301612) Sponsor Admin./Contractual Contact: Larry A. Foster, Purchasing Agent;Lester Industries, Inc.; Box 2997; Westside Industrial Parkway, Rome, GA 30161Reports: See Deliverable Schedule Security Classification: noneDefense Priority Rating: noneRESTRICTIONSSee Attached N/A Supplemental Information Sheet for Additional RequirementsTravel: Foreign travel must have prior approval - Contact OCA in each case. Domestic travel requires sponsor approval where total will exceed greater of \$500 or 125% of approved proposal budget category.Equipment: Title vests with N/ACOMMENTS:COPIES TO:Administrative Coordinator  
Research Property Management  
Accounting OfficeResearch Security Services  
Reports Coordinator (OCA)EES Research Public Relations  
Project File (OCA)

GEORGIA INSTITUTE OF TECHNOLOGY  
OFFICE OF CONTRACT ADMINISTRATION  
SPONSORED PROJECT TERMINATION

Date: A-2985

Project Title: Testing of Foundry Roof for Corrosive Effects

Project No: A-2985

Project Director: Dr. T. L. Starr

Sponsor: Lester Industries, Inc.; Rome, GA

Effective Termination Date: 8/31/81

Clearance of Accounting Charges: 8/31/81

Grant/Contract Closeout Actions Remaining:

- ☒ ~~Final Inv. and Closing Documents~~
- ☐ Final Fiscal Report
- ☐ Final Report of Inventions
- ☐ Govt. Property Inventory & Related Certificate
- ☐ Classified Material Certificate
- ☐ Other \_\_\_\_\_

Assigned to: EMSL/CEB (~~SEK/~~Laboratory)

COPIES TO:

Administrative Coordinator  
Research Property Management  
Accounting Office  
Procurement Office  
Research Security Services  
Reports Coordinator (OCA)

Legal Services (OCA)  
Library, Technical Reports  
EES Research Public Relations (2)  
Project File (OCA)  
Other: \_\_\_\_\_



Georgia Institute of Technology  
ENGINEERING EXPERIMENT STATION  
ATLANTA, GEORGIA 30332

June 25, 1981

Mr. Martin J. Johnson  
Lester Industries, Inc.  
P. O. Box 2997  
Rome, GA 30161

Dear Mr. Johnson:

After much delay, I am now able to report the results of my analysis of the rust samples I obtained during my visit to your plant February 27th. This sample was taken from the heavily rusted gutter below the main furnace flue. My analysis indicated a significant level of chloride in the rust, approximately  $10\mu\text{g}/\text{cm}^2$ . This chloride is probably the cause of the accelerated corrosion you have observed. The likely source of this chloride is the flux and degasser compounds used in the aluminum bath. A more corrosion resistant gutter material is suggested, perhaps a fiberglass composite.

The effect of this chloride on your painted steel roof is more difficult to determine. Paint will act as an effective barrier to the chloride. However, as the coating degrades under normal weathering, it will become more permeable to chloride and less effective in preventing rust. The timing of this process is impossible to determine. Probably the best strategy is to routinely check the roof, looking for signs of paint degradation (chalking, peeling, etc.). A new coating of paint at the first sign of significant degradation will prolong the lifetime of the roof.

I hope this report will help to guide you in your building maintenance program.

Sincerely,

Thomas L. Starr  
Energy and Materials Sciences Laboratory

cc: William Darley  
Eric Berg

CHARGE FOR LESTER INDUSTRIES ANALYSIS

Personal Services

Senior Research Scientist-1 day @\$136/day	\$136
Retirement (11.11%)	15
Overhead (73%)	99
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TOTAL:	\$250